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Research Note

New Host and Distribution Record of *Raillietina (Raillietina) coreensis* (Cestoda) from *Apodemus argenteus* (Rodentia) in Japan

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ABSTRACT: *Raillietina (Raillietina) coreensis* Honda, 1939 is redescribed from the small intestine of *Apodemus argenteus* (Rodentia: Muridae) in Hokkaido, Japan. This report represents a new host and distribution record for *R. coreensis* in the host and in Japan.

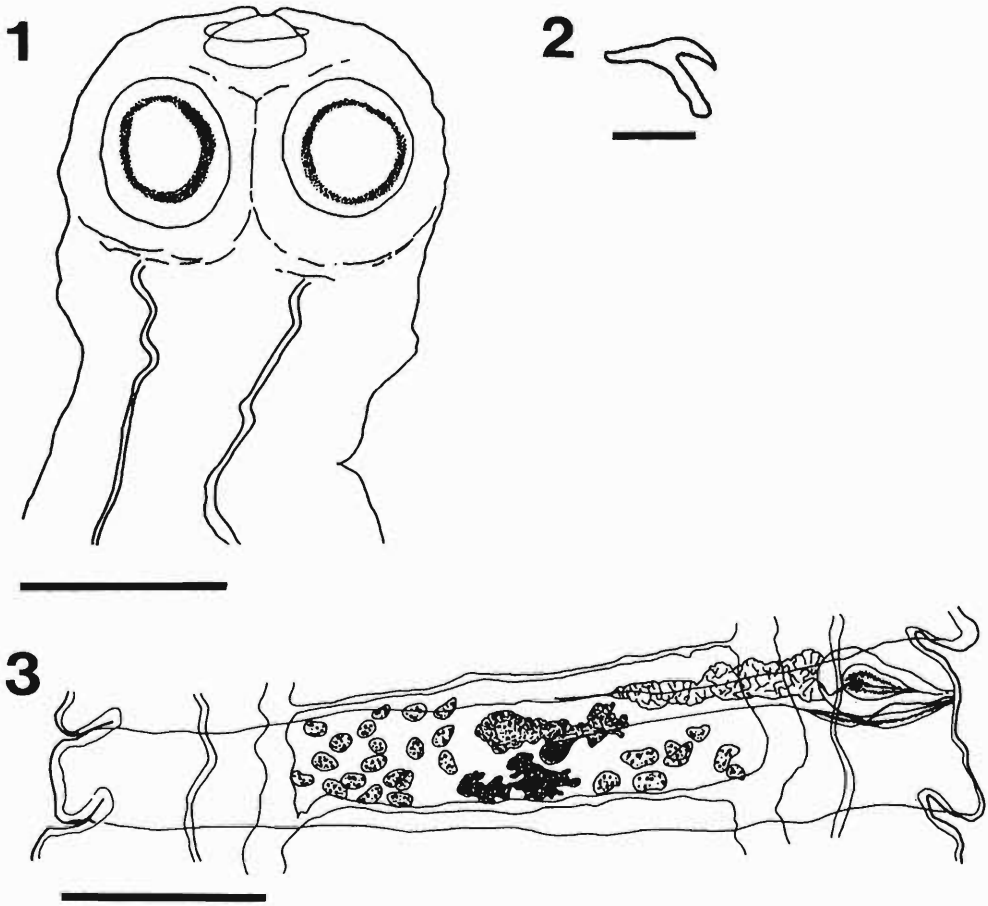
KEY WORDS: *Raillietina (Raillietina) coreensis,* cestode, Davaineidae, *Apodemus argenteus,* rodent, Japan.

Cestodes of the genus *Raillietina* Fuhrmann, 1920 have been reported from various rodents in the tropical and subtropical zones. However, there are few records of *Raillietina* from *Apodemus* Kaup, 1829 (Rodentia). We obtained *Raillietina (Raillietina) coreensis* Honda, 1939 from a small Japanese field mouse, *Apodemus argenteus* (Temminck) in Hokkaido, Japan, representing a new host and distribution record for the parasite.

Cestodes were collected from the small intestine of an *A. argenteus* (female, 10–18 mo old) captured at Abuta, Hokkaido, Japan in October 1991. Worms were lightly pressed, fixed in 70% ethanol, stained with acetocarmine, dehydrated in an ethanol series, cleared in xylene, and mounted in MGK® (Matsunami Glass Ind., Ltd., Japan). All measurements in fixed specimens are in micrometers unless otherwise indicated and given as a range with the mean in parentheses.

Raillietina coreensis Honda, 1939 (Figs. 1–3)

Redescription (based on 2 specimens): Total body length 61 and 114 (88) mm, maximum width 2 mm. Scolex 363 and 554 (459) long by 264 and 528 (396) wide. Four suckers oval, 106–123 (117) long by 92–115 (102) wide, with numerous hooks 7–8 long, arranged diagonally with about 7 hooks per row on the inside of the sucker. Rostellum 86–99 (93) wide. Most of rostellar hooks lost during processing. One remaining hook hammer-shaped and 13 long. Proglottids trapezoidal. Mature proglottids 132–238 (180) long by 785–1,465 (1,033) wide. Genital pore unilateral, usually located in anterolateral position in mature proglottids; some situated near middle of margin. Testes 24–29 (27) in number lying on



Figures 1-3. 1. Scolex. Scale = 0.2 mm. 2. Rostellar hook. Scale = 10 μm. 3. Mature proglottid. Scale = 0.2 mm.

both sides of mature proglottids. Cirrus sac 92–119 (101) long by 43–59 (52) wide. Ovary is bilobed, situated almost at center of proglottid. Vitelline gland situated posterior to ovary. Gravid proglottids wider than long, containing 102–190 (136) egg capsules. Six to 12 (8) eggs are found in each capsule. Spherical oncospheres, 11–16 (13) in diameter, lie nearly in center of eggs.

HOST: *Apodemus argenteus.*
SITE: Small intestine.
LOCALITY: Abuta, Hokkaido, Japan.

SPECIMENS DEPOSITED: Department of Parasitology, Faculty of Veterinary Medicine, Hokkaido University, No. P 721.

Several species of *Raillietina* in rodents have been reported in Japan. Miyazaki (1950) reported *Raillietina madagascariensis* (Davaine, 1869) from *Rattus norvegicus* (Berkenhout) in Kagoshima. Kamiya et al. (1968) found *Raillietina celebensis* (Janicki, 1902) in *R. norvegicus* and *Rattus rattus* (Linnaeus) in southern Amami. Goto and Nishimura (1988) found *Raillietina* sp. in *Apodemus speciosus* (Temminck) in Aomori. In Korea, Honda (1939) described *R. coreensis* in *Apodemus agrarius coreae* (Thomas) at prevalence of about 3%. Seo et al. (1968) also reported this species from *A. agrarius* (Pallas) and *Microtus fortis pellceus* Thomas in southern Korea, but with no morphological description.

Our specimens were identified as *R. coreensis* based on form of mature proglottids, position of genital pore, measurements for suckers (109 μm in Honda's description), and cirrus sac (96–129 long by 40–56 wide), presence of hooks in suckers, number of testes (26–28), and number of eggs in capsule (7–13). Though we were unable to

count number of rostellar hooks in our specimens Honda (1939) noted that there were 80. *Raillietina* sp. of Goto and Nishimura (1988) shows similar measurements to Honda's (1939) and ours; thus, it may also be identified as *R. coreensis*.

Though both Miyazaki (1950) and Kamiya et al. (1968) reported *Raillietina* from *Rattus* in southern parts of Japan, specimens of ours and of Goto and Nishimura (1988) from *Apodemus* were obtained in the far north of the country. It suggests that cestodes in *Apodemus* have a different distribution and host range than those in *Rattus*. Including this study, *R. coreensis* has been reported from 2 species of *Apodemus*. We suggest that *R. coreensis* has a close host–parasite relationship with *Apodemus* in east Asia.

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Research Note

Helminth Parasites of Ringed Seal, *Phoca hispida*, from Northern Quebec, Canada

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ABSTRACT: Five ringed seals, *Phoca hispida* Schreber, 1775 collected by Inuit hunters near Salluit (Quebec) in eastern Arctic Canada were examined for helminths. Four nematodes, *Acanthocheilonema spirocauda* (Leidy, 1858), *Otostrongylus circumlitus* (Railliet, 1899), *Filaroides* (*Parafilaroides*) *krascheninnikovi* Yurakhno and Skrjabin, 1971, and *Phocascaris phocae* Höst, 1932; 2 acanthocephalans, *Corynosoma strumosum* (Rudolphi, 1802) and *C. reductum* (von Linstow, 1905); 2 cestodes, *Diplogonoporus tetrapterus* (von Siebold, 1848) and *Anophryocephalus* sp., were found. New geographic records of *A. spirocauda, P. krascheninnikovi, P. phocae,* and *D. tetrapterus* are reported.

KEY WORDS: parasitic helminths, ringed seal, *Phoca hispida,* Arctic Canada, *Acanthocheilonema spirocauda, Otostrongylus circumlitus, Filaroides* (*Parafilaroides*) *krascheninnikovi, Phocascaris phocae, Corynosoma strumosum, Cornyosoma reductum, Diplogonoporus tetrapterus, Anophryocephalus* sp.

The ringed seal, *Phoca hispida* Schreber, is still an important "country food" in some Inuit communities in Arctic Canada. It is the most common and most widely distributed Arctic seal and has a circumpolar distribution. Its helminth fauna in eastern Arctic Canada has been poorly studied (Cooper, 1921; Lyster, 1940; Myers 1957a, b). Recently, Kennedy (1986) and Onderka (1989) studied lungworms of ringed seals in western Arctic Canada. During some preliminary work with ringed seals in northern Quebec various helminths were collected and the present study reports our findings.

Five ringed seals were collected by Inuit hunters in inshore waters of Hudson Strait near Salluit (Quebec), Canada (62°13′N, 75°39′W) 25–28 August 1992. From each animal standard length, axial girth, maximum girth, blubber thickness, body weight, and sculp weight were measured (American Society of Mammalogists, 1967). Sculp weight is the weight of the skin with